

INTERNATIONAL SEARCH REPORT

Internat Application No
PCT/IB2005/050160

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F16F15/027 G03F7/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F16F G03F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 823 307 A (SCHUBERT ET AL) 20 October 1998 (1998-10-20) column 1, lines 8-21 column 1, lines 65,66 column 24, line 41 - column 25, line 4 column 5, lines 30-48 figures 1,17	1-10
A	US 6 193 206 B1 (YASUDA MASASHI ET AL) 27 February 2001 (2001-02-27) column 1, lines 40-42 column 2, lines 26-35; figures 1,6	1,6,7
X	US 5 631 506 A (PADEN ET AL) 20 May 1997 (1997-05-20) column 8, line 27 - column 9, line 28 figure 7	1-10
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the International search

24 March 2005

Date of mailing of the International search report

05/04/2005

Name and mailing address of the ISA

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Fax (+31-70) 340-3016

Authorized officer

Fritzen, C

INTERNATIONAL SEARCH REPORT

Intern Application No
PCT/IB2005/050160

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACTS OF JAPAN vol. 2000, no. 12, 3 January 2001 (2001-01-03) -& JP 2000 249185 A (FUJITA CORP; TOKKYOKIKI CORP), 12 September 2000 (2000-09-12) abstract; figure 1 -----</p>	1

INTERNATIONAL SEARCH REPORT

Internatl Application No
PCT/IB2005/050160

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5823307	A	20-10-1998	US 5660255 A 26-08-1997
			BR 9501432 A 19-12-1995
			CA 2146200 A1 05-10-1995
			DE 69509819 D1 01-07-1999
			DE 69509819 T2 13-01-2000
			EP 0676558 A1 11-10-1995
			IL 112765 A 10-03-1998
			JP 8054039 A 27-02-1996
			KR 162280 B1 01-12-1998
US 6193206	B1	27-02-2001	JP 11230246 A 27-08-1999
US 5631506	A	20-05-1997	NONE
JP 2000249185	A	12-09-2000	NONE

VIII-2-1	Declaration: Entitlement to apply for and be granted a patent Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate: Name (LAST, First)	in relation to this international application KONINKLIJKE PHILIPS ELECTRONICS N.V. is entitled to apply for and be granted a patent by virtue of the following:
VIII-2-1(i)		KONINKLIJKE PHILIPS ELECTRONICS N.V. is entitled as employer of the inventor, WARMERDAM, Thomas, P., H.
VIII-2-1(i)		KONINKLIJKE PHILIPS ELECTRONICS N.V. is entitled as employer of the inventor, VERVOORDELDONK, Michael, J.
VIII-2-1(x)	This declaration is made for the purposes of:	all designations except the designation of the United States of America

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PHNL040088WO	FOR FURTHER ACTION	See item 4 below
International application No. PCT/IB2005/050160	International filing date (<i>day/month/year</i>) 14 January 2005 (14.01.2005)	Priority date (<i>day/month/year</i>) 26 January 2004 (26.01.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant KONINKLIJKE PHILIPS ELECTRONICS N.V.		

1.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).																								
2.	This REPORT consists of a total of 6 sheets, including this cover sheet. In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.																								
3.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 30%;">Box No. I</td> <td style="width: 60%;">Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input checked="" type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<input type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).																								

<p style="text-align: center;">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 338 82 70</p>	<p>Date of issuance of this report 27 July 2006 (27.07.2006)</p> <hr/> <p>Authorized officer</p> <p style="text-align: center; font-size: 1.2em;">Cecile Chatel</p> <p>e-mail: pt13@wipo.int</p>
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PATENT COOPERATION TREATY

REC'D 01 APR 2005

WIPO

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From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2005/050160

International filing date (day/month/year)
14.01.2005

Priority date (day/month/year)
26.01.2004

International Patent Classification (IPC) or both national classification and IPC
F16F15/027, G03F7/20

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for International preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office
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Fax: +49 89 2399 - 4465

Authorized Officer

Telephone No. +49 89 2399-



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/050160

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/050160

**Box No. V Reasoned statement under Rule 43b/s.1(a)(I) with regard to novelty, inventive step or
Industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-10
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	
	No: Claims	1-10

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Re Item V.

1 Reference is made to the following documents:

D1 : US 5 823 307 A (SCHUBERT ET AL) 20 October 1998 (1998-10-20)

D2 : US 5 631 506 A (PADEN ET AL) 20 May 1997 (1997-05-20)

D3: US-B1-6 193 206 (YASUDA MASASHI ET AL) 27 February 2001 (2001-02-27)

2 INDEPENDENT CLAIM 1

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1, see particularly figures 1,17 and related text passages, discloses all features of claim 1, namely:

An active vibration isolation system arranged to isolate a payload (Mp) from earth movements, said payload (Mp) being supported by means of at least one spring (32), said system comprising a sensor for sensing a displacement of said payload (26) and generating a displacement signal, a controller (28) for receiving said displacement signal and generating a control signal based on said displacement signal, and an actuator (12) arranged to generate an actuation force based on said control signal, wherein said system comprises a mass (Ms) supporting said payload (Mp), said sensor is arranged to sense a displacement of said payload (Mp) relative to said mass, and said actuator is arranged to apply said actuating force to said mass (Ms), such that said payload (Mp) is used as an inertial reference mass.

The applicant should note that the subject matter of claim 1 is also not new over the disclosure of D2.

3 INDEPENDENT CLAIM 9

3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 9 is not new in the sense of Article 33(2) PCT.

Document D1 discloses all features of claim 9, namely:

A method of active vibration isolation to isolate a payload (Mp) from earth movements, comprising:

- supporting said payload (Mp) by means of at least one spring (32),
- providing a sensor for sensing a displacement of said payload (26) and generating a displacement signal,
- generating an actuation force based on said control signal,
- supporting said payload (Mp) by a mass (Ms),
- sensing a displacement of said payload (Mp) relative to said mass, and
- applying said actuating force on said mass (Ms), such that said payload (Mp) is used as an inertial reference mass.

4 DEPENDENT CLAIMS 2-8, 10

Dependent claims 2-8, 10 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

The additional features of claims 2-5,8 and 10 are known per se from document D1. The additional features of claims 6 and 7 concern a selection of parameters as commonly known in the art (see e.g. document D3, column 1, lines 40-42).

Re Item VII.

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 or D2 is not mentioned in the description, nor are these documents identified therein.

PATENT COOPERATION TREATY

REC'D 01 APR 2005

WIPO

PCT

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
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FOR FURTHER ACTION
See paragraph 2 below

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D-80298 Munich
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Authorized Officer

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INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050160

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	No: Claims	1-10
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	
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2. Citations and explanations

see separate sheet

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2 INDEPENDENT CLAIM 1

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The applicant should note that the subject matter of claim 1 is also not new over the disclosure of D2.

3 INDEPENDENT CLAIM 9

3.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 9 is not new in the sense of Article 33(2) PCT.

Document D1 discloses all features of claim 9, namely:

A method of active vibration isolation to isolate a payload (Mp) from earth movements, comprising:

- supporting said payload (Mp) by means of at least one spring (32),
- providing a sensor for sensing a displacement of said payload (26) and generating a displacement signal,
- generating an actuation force based on said control signal,
- supporting said payload (Mp) by a mass (Ms),
- sensing a displacement of said payload (Mp) relative to said mass, and
- applying said actuating force on said mass (Ms), such that said payload (Mp) is used as an inertial reference mass.

4 DEPENDENT CLAIMS 2-8, 10

Dependent claims 2-8, 10 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

The additional features of claims 2-5,8 and 10 are known per se from document D1. The additional features of claims 6 and 7 concern a selection of parameters as commonly known in the art (see e.g. document D3, column 1, lines 40-42).

Re Item VII.

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 or D2 is not mentioned in the description, nor are these documents identified therein.